

DEPARTMENT OF TRANSPORTATION



QUESTIONNAIRE

REGARDING TRANSITIONING FROM THE CURRENT

TITLE-21 PROTOCOL TO A NEW PROTOCOL

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The California Department of Transportation (Caltrans) is currently considering the development of regulations regarding new technologies and new technical specifications to replace the current automated vehicle identification protocol currently set out in the California Code of Regulations (commonly referred to as the "Title-21 protocol"). Caltrans is very interested in hearing from stakeholders as to their views on the transitioning from Title-21 protocol to a new protocol, most likely the 6C protocol.

Caltrans will be holding two public workshops (July 8, 2015 in Oakland and July 22, 2015 in Fontana) to solicit initial comments on the transition from the current Title-21 protocol.

However, in anticipation and in connection with those workshops and other activities to facilitate public participation in the regulatory process, Caltrans invites you to complete the following questionnaire. This information will greatly assist Caltrans as it begins the process of considering new regulations.

Please provide your responses following each question. Please feel free to forward this questionnaire to any other interested parties.

Please e-mail your responses to: Title.21.Changes@dot.ca.gov.

Please list the name of the person completing the questionnaire and the name of the agency or company you represent.

NAME Lynn Valdivia_____

AGENCY Bay Area Toll Authority_____

1. Are there any alternatives to the transition to 6C, including comparable Federal regulations or regulations/protocols in other states?

A possible alternative to transitioning to 6C is to wait for implementation of the Federal MAP-21 regulation that mandates national interoperability for Electronic Toll Collection (ETC). The International Bridge, Tunnel, and Turnpike Association (IBTTA) has taken the lead on ETC interoperability, with an early focus on selection of a single National Toll

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Protocol for transponders and reader equipment. Protocol selection has been narrowed to three protocol options: EZPass' TDM, TransCore's SeGo, and 6C. Although the timeline for selection and testing of a national protocol is progressing, IBTTA must also address back office technical approaches, marketing, and governance in order to support interoperability. Ultimately, many issues still require resolution before national interoperability approaches are vetted, approved, and eventually adopted. We do not expect this to be completed for several years. herefore, a transition to 6C now will enable CA agencies to benefit from cost savings associated with use of the 6C protocol. In addition, the 6C protocol may eventually be selected as the national protocol. 6C transponder costs are significantly lower than the TDM and SeGo protocols. 6C is also the common protocol used by neighboring Western toll operators in Washington, Utah, Colorado, and British Columbia.

2. What are the benefits of the transition to 6C? What are the drawbacks?

The benefits of transitioning to 6C include transponder cost savings, an established user base of toll operators using a tolling-specific programming standard, the ability to leverage an established compatibility certification process for tolling, and multiple vendors able to supply 6C transponder and readers. Concerns with transitioning to 6C include the need to develop a 3-position (SOV, HOV2, and HOV 3+ settings) switchable transponder and 6C technology intellectual property disputes among vendors.

3. Please discuss the factors involved, including projected timetables, for transitioning to a new protocol, with respect to the following:

a. Transponder procurements/existing inventories

BATA typically maintains a 4 month inventory of transponders and procures transponders annually. BATA anticipates the development, certification, and testing of transponder form factors to take one year. A further eight months for the procurement of transponders and seven months for manufacturing lead time and delivery will be needed. Overall, BATA anticipates taking up to 27 months from start of development to having 6C transponders in hand.

b. Toll-system modifications

BATA will need to modify the toll system used for the Regional Customer Service Center (RCSC) in order to support 6C. Modification to the RCSC toll system include supporting changes to the CTOC Technical Specification for Interagency Electronic File Exchange,

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Interchange Control Documents (ICD) for exchanging transaction and transponder data with regional toll systems, and updating transponder inventory tracking and reports. BATA anticipates upgrading the RCSC toll system will take up to one (1) year.

The BATA toll system, used to support the seven Bay Area bridges tolling program (ATCAS II), will take approximately one (1) year to modify, in order to handle the new RCSC ICD, update lane controllers to handle the 6C transponder information, and re-tuning multiprotocol readers to read 6C and Title-21 simultaneously.

The MTC Express Lanes' toll system, supported by BATA, will need similar modification to the ATCAS II toll system. However, since only one Express Lane corridor will be operational before 2018, toll system updates will take approximately six (6) months.

c. Agency administrative changes

With the introduction of a second protocol, BATA will need to change internal administrative processes to separately track 6C and Title-21 transponder inventories. Toll transactions generated by each protocol will also be tracked in order to monitor system performances. These administrative changes will occur at the same time as toll system modifications.

d. Public education, outreach, and marketing

Currently Title-21 transponders provide customers an audible beep to let them know their battery operated transponders are working. With the introduction of 6C transponders that will not need batteries, BATA will have to educate customers that 6C transponders will not beep. 6C will also enable the introduction of different transponder forms; therefore, customer education will be needed regarding mounting instructions and whether or not transponders can be moved between vehicles. Specifically sticker 6C transponders adhere to windshields and cannot be moved between vehicles.

e. Issues regarding certification

BATA supports a 6C certification process, like leveraging the OmniAir certification, to ensure compliance between 6C vendor equipment for CTOC agencies. This certification will not replace the need for agencies to conduct performance testing of equipment on their respective toll facilities.

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PAGE 4**f. Issues regarding three-position transponders**

3-position switchable transponders are needed to support the MTC Express Lanes for customers to declare their vehicle occupancy. BATA will coordinate with other agencies on switchable 6C transponder development.

4. Please describe how the transition:**a. Impacts business and/or employees**

Outside of vendors directly supporting the transition for BATA, no impacts are anticipated.

b. Impacts small businesses

No impacts to small businesses are anticipated.

c. Impacts jobs or occupations

No impacts to jobs or occupations are anticipated.

d. Imposes reporting requirements

BATA does not anticipate changes to current local, State, or Federal toll reporting requirements regarding a transition to 6C.

e. Impacts individuals

Customers and agency staff will need to be educated on the new transponder types, such as sticker and new switchable transponder types. BATA will accept both tag protocols, so customers with Title 21 tags will not be required to obtain a new 6C tag until their Title 21 tag is no longer functional.

5. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here?

A change to a less costly 6C protocol will positively impact California by reducing the cost of transponders purchases.

6. What are the costs that businesses and individuals may incur to comply with this regulation over its lifetime?

BATA does not anticipate businesses or individuals will incur costs to comply with this regulation over its lifetime on its toll facilities.

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PAGE 5**7. What are the fiscal impacts on state and local government?**

Although there will be initial costs to modify toll systems, the significant cost savings from less expensive transponders will have positive fiscal impacts to toll operators in California.

8. Are there any issues regarding fairness of competition?

There are multiple vendors that currently sell 6C transponders and reader equipment to toll operators. The ISO 18000 Part 63 (6C) is an open and non-proprietary protocol used in many industries beyond tolling.

9. Are there any issues regarding individual privacy?

Introduction of 6C does not change the nature of Electronic Toll Collection, but rather it will be a technology update for transponder-based toll collection. No change to current Personal Identifiable Information (PII) policies is anticipated.

10. Please provide comments on any other relevant issues not addressed above.

BATA supports incorporation of a sunset date for use of Title 21 in order to eliminate the need to support a legacy protocol. Additionally, California agencies will need to support a national protocol that may not be 6C; having a sunset date for Title 21 will eliminate the need to support a third protocol at a later date.

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE